**February 2, 2015** 

## Natural Gas Trends

**Highlights** NTSB calls for stronger federal safety oversight

Federal regulators should step up their oversight of natural gas pipeline integrity management programs in order to boost safety in highly populated areas, the National Transportation Safety Board said in a study adopted Tuesday. "Effective oversight and management of these programs saves lives, preserves property and protects the environment," Christopher Hart, acting chairman of the NTSB, said in a January 27 statement. "Improving pipeline safety is a critical human safety issue that can and must be improved now," he added. NTSB decided to study gas pipeline safety programs in the wake of three major gas pipe accidents: a 2009 incident in Palm City, Florida; the 2010 blast in San Bruno, California; and a 2012 incident in Sissonville, West Virginia. In each of those cases, pipeline integrity management programs and federal oversight were cited as concerns, NTSB said in a synopsis of the report. The full report will be released after NTSB staff has made its final revisions to the study.

At issue are gas pipelines' integrity management (IM) programs. In 2003, the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration released rules that required natural gas pipelines operators to develop IM programs to ensure the safety of their pipelines in populated regions called high-consequence areas (HCA). As part of the program, pipelines identify HCAs, determine threats to the pipeline within the HCA, evaluate the integrity of the pipe in the HCA and correct any pipe defects that are found. But the NTSB's new study found that these programs have not cut down on the pipeline incidents in populated areas. "This study found that while PHMSA's gas IM requirements have kept the rate of corrosion failures and material failures of pipe or welds low, there is no evidence that overall occurrence of gas transmission pipeline incidents in HCA pipelines has declined," according to the study. NTSB noted that operators need to improve the way they identify threats and estimate risks, since these factors have a big impact on the effectiveness of pipeline safety programs. At the same time, PHMSA needs to provide more guidance to both pipeline operators and inspectors to help them deal with complex IM programs, the study said. NTSB also found that in-line inspections, which send a device through the pipeline to look for problems, are the most effective assessment method allowed by PHMSA rules. "Of the four integrity assessment methods, inline inspection yields the highest per-mile discovery of anomalies that have the potential to lead to failure if undetected," NTSB said.

#### In-line inspection used in 68% of intrastate pipelines

But due to the operation and configuration of pipelines, in-line inspection is used in just 68% of intrastate pipelines, compared to 96% of interstate pipelines, the study found. The NTSB outlined 22 recommendations for PHMSA, including: requiring pipelines to identify HCAs on the National Pipeline Mapping System; assessing the limitations of the current process for identifying HCAs; establishing minimum criteria for eliminating threats; evaluating the effectiveness of the four allowed risk assessment approaches; and requiring that all gas pipes be capable of using in-line inspection tools. PHMSA should also revise reporting forms to collect information about HCA identification methods, risk assessment approaches, and the interaction of multiple threats, so that the agency can evaluate the link between these factors and specific pipeline incidents, the NTSB said. The study also recommended that the American Gas Association and Interstate National Gas Association of America work together to collect data to develop probabilistic risk assessment models. The two groups should also develop a strategy to increase the use of in-line inspection tools, especially for intrastate pipelines, NTSB said.

#### **Industry groups respond to report**

In response to the report, INGAA spokeswoman Cathy Landry said the trade group's members "take pipeline safety seriously. In fact, it's job number-one for our members." "NTSB found that the primary focus of the IM program was to reduce incidents involving corrosion and material failures, and it concluded that this program has been effective, especially when using in-line inspection technology (so-called smart pigs)," Landry said, noting that INGAA members already use in-line inspection widely. "NTSB also recommended changes to the IMP program that INGAA's members already are in the process of making as part of our voluntary commitments," Landry said. "We intend to work with PHMSA, Congress, other industry groups and the NTSB to identify ways to make our systems as safe as possible."

AGA also weighed in, saying it "encourages natural gas industry stakeholders to continue to work diligently to enhance the safety of the US natural gas transmission network, and supports the NTSB in its investigation of transmission integrity management." "We believe that local natural gas distribution companies are already making progress on a number of the NTSB's recommendations," the groups statement said. "We look forward to the opportunity to review the full NTSB study once it is published and commend the NTSB for its continued efforts to further elevate pipeline safety."

Meanwhile, PHMSA spokesman Damon Hill said the agency "has already undertaken efforts to enhance the effectiveness of integrity management programs through rulemaking proposals, reporting requirements and other activities to help operators better understand, measure and assess the performance of their pipelines and ensure they continue to operate safely and reliably." "We will review the recommendations developed as a result of the safety study and will determine next steps once our review is complete," Hill added.

Source: Platts Gas Daily

#### Data

- March 2015 Natural Gas Futures Contract (as of January 30), NYMEX at Henry Hub closed at \$2.691 per million British thermal units (MMBtu)
- March 2015 Light, Sweet Crude Oil Futures Contract WTI (as of January 30), closed at \$48.24 per U.S. oil barrel (Bbl.) or approximately \$8.32 per MMBtu

#### Last week: Texas warmer than normal

For the week beginning 1/25/15 and ending 1/31/15, heating degree days (HDD) were lower than normal (warmer) for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)				
City or Region	Total HDD for week ending 1/31/15	*Week HDD + / - from normal	Year-to- date total HDD	* YTD % +/- from normal
Amarillo	128	-73	2440	-9%
Austin	69	-33	1277	14%
DFW	67	-74	1498	-6%
El Paso	94	-39	1485	-15%
Houston	49	-42	968	-5%
SAT	44	-53	978	-9%
Texas**	68	-47	1320	0%
U.S.**	188	-16	2522	-5%

\* A minus (-) value is warmer than normal; a plus (+) value is cooler than normal. NOAA uses 65° Fahrenheit as the 'normal' basis from which HDDs are calculated. \*\* State and U.S. degree days are population-weighted by NOAA.

-999 = Normal Less Than 100 or Ratio Incalculable

## Last week: U.S. natural gas storage at 2,543 Bcf

For the week ending 1/23/2015 working gas in storage decreased from 2,637 Bcf to 2,543 Bcf. This represents a decrease of 94 Bcf from the previous week. Stocks were 324 Bcf higher than last year at this time and 79 Bcf below the 5 year average of 2,622 Bcf. Source:

http://ir.eia.gov/ngs/ngs.html Lower 48 states, underground storage, units in billion cubic feet

	U.S. WORKING GAS IN STORAGE				
	Region	Week ending 1/23/15	Prior week	One- week change	Current Δ from 5-YR
					Average (%)
	East	1,281	1,350	-69	-3.0%
	West	375	384	-9	1.1%
	Producing	887	903	-16	-4.6%
	Lower 48 Total	2,543	2,637	-94	-3.0%

# more Natural Gas Trends

#### Last week: U.S. gas rig count up for the week

The gas rig count for the U.S. was up three for the week and down 39 when compared to twelve months ago. The total rig count for the U.S. was down 90 from last week and down 242 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

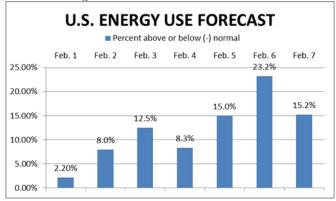
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 1/30/2015	+/- prior week	Year ago	+/- year ago
Texas	695	-58	842	-147
U.S. gas	319	3	358	-39
U.S. oil	1223	-94	1422	-199
U.S. total	1543	-90	1785	-242
Canada	394	-38	608	-214

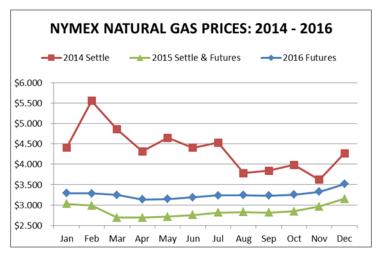
## This week: U.S. energy use above normal

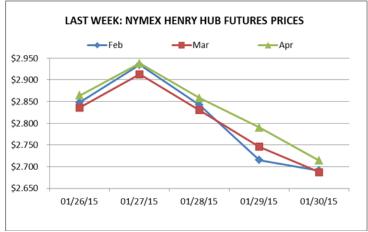
U.S. energy use is predicted to be above normal this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2015 prices. Natural gas prices for 2015, shown below in green, are the NYMEX settlement prices for Jan.-Feb. and futures prices for the remainder of the year.





### NATURAL GAS PRICE SUMMARY AS OF 1/30/2015

+/- Last | +/- Last | 12-Month

	Week	Week	Year	Strip Avg.	
US March futures					
NYMEX	\$2.691	-\$0.295	-\$2.164	\$2.856	